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(54) TITLE OF INVENTION    Nutritional Food Formula

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(72) INVENTOR    Toshiaki KIRINO

5-15, 3-Chome, Higashi Sukematsu Machi,  
Izumiotu City, Japan

(71) APPLICANT    Sanyu Shoji, KK

Mikuni Building, 25, 2-Chome, Dosho Machi,  
Higashi Ku, Osaka City

#### DETAILED EXPLANATION

##### 1. TITLE OF INVENTION:

Nutritional Food Formula

##### 2. CLAIMS:

Nutritional food supplement derived from Royal Jelly and Octacosanol

##### 3. DETAILED EXPLANATION OF THE INVENTION:

This invention pertains to a unique nutritional food formula derived from Royal Jelly and Octacosanol.

Produced internally by worker bees from the pollen and nectar of flowers, Royal Jelly has been used as an "elixir" for nurturing queen bees. The nutritive and healthful properties of Royal Jelly were even known to and highly regarded by the ancients. In recent years however, there has been a growing realization that the intended full effectiveness of Royal Jelly has not yet been achieved, thus giving rise to an increasing number of attempts to further enhance its properties. Nevertheless, the outcome to date has proven to be less than satisfactory.

The results of many years of research by the inventor and relevant applications to Octacosanol has brought about a synergistic increase in achieved levels of energy and vitality, thus eventuating the conclusion of work on this invention.

The unique nutritional food formula of this invention is comprised of Royal Jelly (in raw or dried powdered form) to which is added Octacosanol in amounts of 0.001 to 2% by weight.

Octacosanol is a 28-carbon saturated primary alcohol and has a melting point of 83°C. It is found naturally on the green blades of wheat, in apple skin, and candelilla wax [*Euphorbia antisiphilitica* Zucc.], cotton wax, beeswax, etc. In addition to its active metabolic effects, it has been determined that Octacosanol builds strength and vitality while enhancing muscle performance and stamina.

The Octacosanol used in this invention is extracted from natural sources. After extraction and refinement, the entire lot is used. It may be mixed with 26- or 30-carbon saturated alcohol without difficulty. Normally, amounts of 30% to 60% by weight are used, however even if amounts of less than 10% by weight are used, the ratio to Royal Jelly are still quite acceptable, although reduced.

The nutritional food supplement as described in this invention is combined with Royal Jelly in such a manner that edible fats in the amount of 5 to 50 times [of that of Royal Jelly] are heated into a solution (approximately 85°C), after which Octacosanol oil solution or similar solution containing cyclodextrin is dispersed and the aqueous admixture is thus transformed.

Not only does this invention possess the combined nutritional effects of Royal Jelly and Octacosanol, the synergy of the two ingredients brings into play maximum energy and vitality. In this way, the fullness of life's energy is achieved.

Practical examples are discussed below.

#### Practical Example 1

10 grams of Octacosanol (50% purity) was added to 90 grams of edible cottonseed oil and heated to 85°C. At room temperature, this mixture is an opaque oily solution. 950 grams of Royal Jelly was added to 50 grams of this oily solution and then blended into a formula. (After

raw and freeze-dried Royal Jelly were mixed into a paste, the paste was then dispersed in an emulsified solution by combining it with monoglyceride and an emulsifier in equal amounts of oil.) The mixture was then placed in a 450 mg soft capsule; each capsule contained 1.125 mg of Octacosanol. When one capsule was administered every day, significant results were seen in increased energy and vitality.

### Practical Example 2

50 grams of cyclodextrin solution (cyclodextrin 23%, other sugars 52%, water 25%) was added to 50 grams of the oil solution, as described in Practical Example 1. While mixing, emulsifiers were slowly added until the entire mixture was thoroughly blended. 450 grams of raw Royal Jelly was added to 50 grams of this aqueous paste and thoroughly mixed. A compound was created such that for each gram of Royal Jelly there was 2.5 mg of Octacosanol. The effects of increased energy and vitality were significant when compared to the effects of Royal Jelly alone.

### Practical Example 3

0.5 grams of the aqueous paste described in Practical Example 2 was dissolved in 999.5 grams of nutritional beverage base (solution consisted of 130 grams of 75% liquid sugars, 20 grams of bee honey, 0.5 grams of Royal Jelly, 50 grams of lemon juice, 2 grams of citric acid, and 1 gram of malic acid dissolved in 795 grams of water), and made into a nutritional food formula. For each 100 grams of health drink, there was 1.25 mg Octacosanol and 50 mg of Royal Jelly. As a liquid tonic, it has proven to be an ideal health and energy formula when consumed prior to events during which energy is expended, such as work and sports.